(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



I DOLD DINGER IN BESTER HEND EINE BERG BERG IN ALL BERGE HALL HAR BERGE BERGE EINE DEUTS EINE GERONE GERFER HE

(43) International Publication Date 25 March 2004 (25.03.2004)

PCT

(10) International Publication Number WO 2004/023903 A3

- (51) International Patent Classification7: A24D 3/16, 1/00
- (21) International Application Number:

PCT/CA2003/001332

(22) International Filing Date:

12 September 2003 (12.09.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/410,266

13 September 2002 (13.09.2002) US

- (71) Applicant (for all designated States except US): ROTH-MANS, BENSON & HEDGES INC. [CA/CA]; 1500 Don Mills Road, North York, Ontario M3B 3L1 (CA).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): SNAIDR, Stanislav, M. [CA/CA]; 4155 Sharonton Court, Mississauga, Ontario L5L 1Y9 (CA).
- (74) Agent: WOODLEY, John, H.; Sim & McBurney, 6th Floor, 330 University Avenue, Toronto, Ontario M5G 1R7 (CA).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

(88) Date of publication of the international search report: 10 June 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



INTERNATIONAL SEARCH REPORT

Internatic plication No PCT/CA 03/01332

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 A24D3/16 A24D1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A24D

Documentation searched other than minimum documentation to the extent that such documents are included. In the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, COMPENDEX, FSTA, PAJ

C. DOCUME	ENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/062834 A1 (SNAIDR STANISLAV M ET AL) 30 May 2002 (2002-05-30) paragraph '0039! paragraph '0079!; claim 3	1-20
A	WO 02 24005 A (ROTHMANS, BENSON & HEDGES INC.) 28 March 2002 (2002-03-28) cited in the application claims 1,4-6	1-20
Α	US 4 915 117 A (ITO MIDORI) 10 April 1990 (1990-04-10) cited in the application claims 1,2,10-13	1-20

X Further documents are listed in the continuation of box C.	χ Patent family members are listed in annex.			
Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed Invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed Invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family			
Date of the actual completion of the international search 12 March 2004	Date of mailing of the International search report 23/03/2004			
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Pille, S			

Form PCT/ISA/210 (second sheet) (July 1992)

____ 1 _£ ^



Internati pilication No
PCT/CA 03/01332

	TO DE STANT	PCT/CA 03/01332		
C.(Continua Category °	tion) DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.	
Calegory	Calation of document, with indication, where appropriate of the contract of th			
Α	US 4 927 622 A (SIVANANDA JADA S) 22 May 1990 (1990-05-22) cited in the application the whole document		1	
P,A	US 2003/069132 A1 (WOODHEAD JAMES L) 10 April 2003 (2003-04-10) cited in the application the whole document		1	
	•			
	·			
			·	
		•		
	·			
			·	
•				
	·			
,				
	·	٠		
		•	-	



Information on patent family members

Internatic pplication No PCT/CA 03/01332

c	Patent document sted in search report		Publication date		Patent family member(s)	Publication date
1	US 2002062834	A1	30-05-2002	AU	9156701 A	02-04-2002
				AU	9156801 A	02-04-2002
				BR	0114463 A	13-01-2004
		•		WO	0224005 A2	28-03-2002
				WO	0224006 A2	28-03-2002
			•	CA	2421177 A1	28-03-2002
				CA	2421192 A1	28-03-2002
				CN	1474660 T	11-02-2004
				CN	1474661 T	11-02-2004
				EP	1318727 A2	18-06-2003
				ĒΡ	· 1318728 A2	18-06-2003
			•	ЙO	20031186 A	19-05-2003
				NO	20031180 A 20031187 A	15-05-2003
				TW	550051 B	01-09-2003
					550051 B 550052 B	01-09-2003
				TW		27-02-2003
				. US	2003037792 A1	27-02-2003
	WO 0224005	Α	28-03-2002	AU	9156701 A	02-04-2002
			•	ΑU	9156801 A	02-04-2002
	•			BR	0114463 A	13-01-2004
			•	WO	0224005 A2	28-03-2002
	•		.•	WO	0224006 A2	28-03-2002
		•	·	CA	2421177 A1	28-03-2002
. '	•		• •	CA	2421192 A1	.28-03-2002
				CN	1474660 T	11-02-2004
			·	CN	1474661 T	11-02-2004
				EP	1318727 A2	18-06-2003
			•	ΕP	1318728 A2	18-06-2003
				NO	20031186 A	19-05-2003
				NO	20031187 A	15-05-2003
				TW	550051 B	01-09-2003
				TW	550052 B	01-09-2003
				ÜŜ	. 2002062834 A1	30-05-2002
				ÜS	2003037792 A1	27-02-2003
	US 4915117	Α	10-04-1990	JP	1039979 A	10-02-1989
	02 4313117	A	10-04-1990	JP	2720155 B2	25-02-1998
						25 02 1390
	US 4927622	Α	22-05-1990	JP	1061323 A	08-03-1989
				JP	4074289 B	25-11-1992
				KR	9104838 B1	13-07-1991
				US	5053214 A	01–10–1991
				US	5112781 A	12-05-1992
	US 2003069132	. A1	10-04-2003	WO	03023096 A1	20-03-2003